IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN

BAD RIVER BAND OF THE LAKE SUPERIOR TRIBE OF CHIPPEWA INDIANS OF THE BAD RIVER RESERVATION,

Plaintiff,

v.

ENBRIDGE ENERGY COMPANY, INC., and ENBRIDGE ENERGY, L.P.,

Defendants.

ENBRIDGE ENERGY COMPANY, INC., and ENBRIDGE ENERGY, L.P.,

Counter-Plaintiffs,

v.

BAD RIVER BAND OF THE LAKE SUPERIOR TRIBE OF CHIPPEWA INDIANS OF THE BAD RIVER RESERVATION and NAOMI TILLISON, in her official capacity,

Counter-Defendants.

Case No. 3:19-cv-00602-wmc

Judge William M. Conley Magistrate Judge Stephen L. Crocker

ENBRIDGE'S RESPONSE TO BAD RIVER BAND OF THE LAKE SUPERIOR TRIBE OF CHIPPEWA INDIANS' STATEMENT OF PROPOSED FINDINGS OF FACT IN SUPPORT OF ITS EMERGENCY MOTION FOR INJUNCTIVE RELIEF

Defendants Enbridge Energy Company, Inc. and Enbridge Energy, L.P. (collectively, "Enbridge") submits its response to Plaintiff Bad River Band of the Lake Superior Tribe of Chippewa Indians' (the "Bad River Band" or "Band") Statement of Proposed Findings of Fact in support of its Emergency Motion for Injunctive Relief as follows:

A. Substantial Bank Loss Has Taken Place with Alarming Rapidity.

1. At the E series of monuments, just 11 feet of bank remains between the Bad River and Line 5. Decl. of Ian B. Paton (Paton Decl.) ¶ 4.

Enbridge Response: **Admitted.**

2. At the M3 series, 12.5 feet remains; at a point between the E and F series, 13.5 feet of bank remains; at the D series, 14.5 feet remains; and at the F series, the figure is 16.5 feet. *Id.* ¶¶ 4, 6.d., 6.e.

Enbridge Response: **Admitted.** Enbridge's field measurements taken on May 8, 2023 vary slightly from the Band's (by a matter of inches) and therefore, Enbridge will not dispute these measurements with the exception of the area "between the E and F series." Neither the Band nor Enbridge took field measurements "between" monument series, and even the Band relies upon measurements at other monuments to estimate. *See* Dkt. 632 at ¶¶ 6.d, 7, 10.

3. At the M3 series, the distance between bank and pipeline was measured at 34 feet in February 2023. *Id.* ¶ 6.b.

Enbridge Response: **Admitted with respect to the distance from Line 5 to the top of the bank at the M3 series.** Enbridge does not dispute this because it does not have the precise pipe-to-bank distance at the M3 series from February 2023. Andy Duncan will testify, however, that Enbridge measured the pipe-to-top of bank distance at the M3 series in October 2022 at 32.5 feet.

4. In one week alone—from April 29 to May 5—the bank decreased by 10.5–11.5 feet, eroding by nearly half from 23–24 feet to 12.5 feet. *Id.* ¶ 6.b.

Enbridge Response: **Disputed in part.** Admitted that bank loss occurred at the M3 series during this time period, and the distance between the pipe and the top of bank is roughly at 12.5 feet; however, Enbridge does not know the precise amount of bank loss between April 29 and May 5 because no field visit occurred until May 8, 2023. *See* Duncan Decl. ¶ 13. Andy Duncan will testify at the hearing that Enbridge is surveying the site again on May 16, 2023, and will determine a more precise pipe-to-top of bank measurement at the M3 line. Further, this rate of erosion (less than 2 feet per day) is well within Enbridge's capability to initiate and complete a purge (an approximately 40-hour process) before any

critical span length (99 feet of aerial span) exists in accordance with its 2021 Shutdown and Monitoring Plan (the "Plan"). *See* Duncan Decl. ¶¶ 38-41.

5. There have been losses of 14.5 feet at the E series, more than 12 feet between the E and F series, and 9 feet at the F series, all in less than a month. *Id.* ¶ 6.c.–e.

Enbridge Response: **Disputed in part.** Admitted that there has been approximately 14.5 feet and 9 feet of bank loss at the E and F monuments, respectively, and losses of approximately 12 feet between the E and F series during the flooding of April and May 2023. Disputed that this bank loss occurred in "less than a month," instead the bank was lost following three consecutive flood events in March and April 2023. *See* Duncan Decl. ¶ 2.e. The fact that there has been less bank loss closer to F (closer to the natural log jam) demonstrates the effect of the protective "shadow" from the natural log jam. *See id.* ¶ 20.

6. At the D series, 19.5 feet has been lost in the last month. *Id.* ¶ 6.a. Here, Enbridge Camera 4—itself now within 4 feet of the top of the bank—captured images showing 3–4 feet of bank loss at both the D and the E series in a single 24- hour period between May 3 and May 4, this at a time when flows in the river were only 6,000 cfs. *Id.* ¶¶ 7, 10 (Figure 3).

Enbridge Response: **Disputed in part.** Enbridge admits that there has been approximately 19.5 feet of bank loss at the D series during the flooding of April and May 2023, but cannot confirm the precise amount of bank loss until Enbridge collects survey data from its next visit on May 16, 2023. Admitted that remote images observed 3–4 feet of bank loss at the D and E series between May 3 and May 4, but Andy Duncan will testify that flows ranged on these days from 4,100 to 6,500 cfs. Enbridge also admits that Camera 4 is roughly 4 feet from the top of bank. Further, this rate of erosion (3–4 feet per day) is well within Enbridge's capability to initiate and complete a purge (an approximately 40-hour process) before any critical span length (99 feet of aerial span) under Enbridge's Plan. *See id.* ¶¶ 38-41.

7. In the Parties' May 1, 2023 Joint Status Report Regarding Meander Conditions ("Joint Status Report"), Dkt. 627, four monuments had been lost at the M3 and F series, but just a week later, another four monuments have been lost all along the bank, including two much closer to the pipeline at the D and E series. *Compare id.* at 4 (Figure 2) & 6 (Figure 3) *with* Paton Decl. at 6 (Figure 1) & 9 (Figure 4).

Enbridge Response: **Admitted.**

8. All this erosion and monument loss has taken place in conjunction with flow levels that are far from extreme. Flows have peaked three times: on April 13 at 13,900 cubic feet per second (cfs), or less than a 10-year event; on April 21 at 10,400 cfs; and on May 1 at 10,900 cfs, with the latter two being less than a 5-year event. Joint Status Report, Dkt. 627 at 3; Paton Decl. ¶ 12 & Figure 7.

Enbridge Response: **Disputed in part.** Enbridge admits flows have peaked three times in the manner described, but Enbridge disputes the subjective characterization of "far from

extreme," especially where the Band refers to them as "significant" in PFOF No. 9 below. Only five floods of this magnitude occurred in the previous eight years from 2014-2022, and this Spring, three "distinct flood events" of this magnitude "occur[ed] within an 18-day period." Weatherly Decl. ¶ 12. Even though there was "unusual" flood sequencing, "the amount of erosion experienced at the Meander in 2023 over the course of these three flow events is not unusual." *Id.*

9. While these flows are significant, none comes remotely close to the flows of record for this stretch of the Bad River. Paton Decl. ¶ 14.c. (pp. 14–15).

Enbridge Response: **Disputed in part.** Enbridge admits that the flows this Spring are smaller than the flood of record, which was a one-in-500-year event. Enbridge admits that these flows can be "significant," but did not, and do not, cause an "unusual" amount of erosion or cause erosion in a way that would impact Enbridge's ability to react and implement its Plan before any pipeline integrity threat occurs. *See* Weatherly Decl. ¶ 12; Duncan Decl. ¶¶ 38-41. Instead, if necessary, in the future due to further erosion at the rates resulting from these flow events, Enbridge could execute and complete a purge and shutdown before any risk of reaching a critical span might potentially occur. *See id.* ¶¶ 38-46.

B. Substantial Bank Loss is Likely to Continue.

10. Drone imagery from May 6 shows a block of channel bank with a tree collapsing into the Bad River immediately downstream from the narrowest portion of the meander neck. *Id.* ¶ 8 & Figure 5. This bank failure occurred while the flow rate of the river was less than 4,000 cfs, or a 1- to 2-year event. *Id.* ¶ 8.

Enbridge Response: **Disputed in part.** Admitted that drone imagery captured a block of channel bank with a tree collapsing into the Bad River on May 6 and that the flow was less than 4,000 cfs at the time, meaning the collapse was likely due to sloughing caused by receding water. Disputed that the location of this tree collapse occurred "immediately downstream" from the "narrowest portion of the Meander neck." In actuality, the tree collapse did not occur near any of the monuments observing the Meander. *See* Duncan Decl. ¶ 67 (and Duncan Figure 5).

11. Site visit photographs show signs that more bank erosion is to come. Along much of the bank, including in the areas where the river is now closest to the pipeline, there are undercut areas where roots are visible and exposed. *Id.* ¶ 14.a. & Figure 8.

Enbridge Response: **Disputed in part.** Admitted that there are "undercut areas where roots are visible and exposed" in some places along the riverbank but not all areas. Admitted that "more bank erosion" *can* potentially occur in the future, but PFOF No. 11 does not identify the extent of such erosion or the amount of time in which the erosion would occur. Disputed that "more erosion is to come": this assumes that future erosion is inevitable and no prevention measures are taken—erosion can be prevented by implementing erosion protection measures. *See* Duncan Decl. ¶¶ 2.h, 29. Specifically, future erosion can be prevented if the Band approved permits for Enbridge's proposed erosion prevention

measures, such as temporary sandbags or natural tree revetment, that would fortify the bank against erosion. *See id*. ¶¶ 51-62, Molina Decl. ¶ 23, Weatherly Decl. ¶¶ 14–17. Denied that the conditions at the Meander are dangerous or that a release from Line 5 is imminent or likely. Duncan Decl. at ¶¶ 2.b, 27, 37, 48.

12. Undercut areas are prone to collapse and bank loss. *Id.* ¶ 14.a.

Enbridge Response: **Disputed in part.** Admitted that generally speaking, undercut areas of riverbank are more prone to collapse and bank loss than otherwise identical areas which are not undercut. Disputed that the conditions at the Meander are dangerous or that a release is imminent or likely. *See* Duncan Decl. ¶¶ 2.b, 27, 37, 48.

13. On top of the bank, cracks have formed that indicate locations where the bank is more susceptible to large slope failures into the river. *Id.* ¶ 9 & Figure 6.

Enbridge Response: **Disputed**. Figure 6 depicts "cracking" at an unidentified location at the "upstream end of the Meaner neck," and does not support cracking at multiple locations. Enbridge cannot admit this fact without understanding what the Band means by "large" slope failures. Enbridge believes that when flood waters recede, the bank will "crack off" as it dries out but does not foresee any "large" or large-scale sloughing at the bank. *See* Duncan Decl. ¶ 66. Disputed that the conditions at the Meander are dangerous or that a release is imminent or likely. *See id*. ¶¶ 2.b, 27, 37, 48.

14. The higher water levels in the river have provided some measure of support for the saturated and unstable bank. *Id.* ¶ 14.b.

Enbridge Response: **Admitted**. Andy Duncan will also testify to observations from the drone and camera images of the bank's condition.

15. As the waters recede, the lower levels of bank are losing that support, with additional sloughing as a result. *Id.* ¶ 14.b.

Enbridge Response: **Disputed in part.** Enbridge admits that some of the erosion that has occurred at the Meander has been due to sloughing, but the Band offers no support for the fact that the lower levels of the bank "are [still] losing support" with additional sloughing resulting. Duncan Decl. ¶ 66.

16. This is a familiar and predictable pattern, one not dependent on further storm events at the meander. *Id.* ¶ 14.b.

Enbridge Response: **Disputed in part.** Admitted that sloughing-based erosion can potentially follow a predictable pattern if left non-remediated. But this fact falsely assumes that future erosion is inevitable and no erosion prevention measures are taken – erosion can be prevented through implementation of erosion protection measures. *See* Duncan Decl. ¶¶ 2.h, 29. Specifically, future erosion can be prevented if the Band approved permits for Enbridge's proposed erosion prevention measures, such as temporary sandbags or a natural tree revetment, that would fortify the bank from erosion. *See id*. ¶¶ 51-62, Molina Decl. ¶

23, Weatherly Decl. ¶¶ 14–17. The Response to PFOF No. 15 is incorporated herein by reference.

17. As the bank moves ever closer to Line 5, the rate of erosion will become ever more unpredictable. The soil and vegetation adjacent to the pipeline may be different than the conditions near the current edge of the bank. *Id.* ¶ 14.e. If the soil in the pipeline trench is less compact (having already been disturbed once) or if there is less root mass to provide stability to the soil in the right of way as a result of historic clearing, this could accentuate the rate of erosion. *Id.* ¶ 14.e.

Enbridge Response: **Disputed**. The Band provides no evidence to support its claim that erosion will become "ever more unpredictable," and its expert's declaration makes no efforts to quantify the rate of erosion (despite claiming in PFOF No. 16 that erosion follows a "familiar and predictable pattern"). The claim erosion will accelerate or become "more unpredictable" is pure speculation unsupported by any evidence. *See* Dkt. 606 at 10:19–11:3 (Band expert Jon Jones, agreeing that he did not quantify or assign a probability of exposure in 2023 or 2024). The underlying assumption for this assertion is that the pipeline trench having been "disturbed" 75 years ago during construction has made the soil less compact or created less root mass, which would result in an "accentuate[d] rate of erosion." *See* Duncan Decl. ¶ 65. Mr. Paton has no evidence to support or suggest this is true. In fact, construction practices could have left the soil in the trench the same as elsewhere in the bank or even more compacted, which by Ian Paton's logic, could naturally decelerate the rate of erosion. *See id*. Enbridge's Plan is designed to enable it to observe erosion in real-time and, if warranted, prepare for and execute a purge with ample time before any critical span could occur. *See id.* ¶¶ 38-46.

18. Additional rainfall events, even if relatively small, could lead to further erosion as well. *Id.* ¶ 14.c.–d.

Enbridge Response: **Disputed in part.** Admitted that rainfall events could possibly lead to further erosion as erosion of a bank can occur when the water levels recede, but PFOF No. 18 assumes no action will be taken at the Meander to prevent future erosion. Future erosion from rainfall events (or any other event) can be prevented through implementation of erosion protection measures. *See* Duncan Decl. ¶¶ 2.h, 2.k, 29. Specifically, future erosion can be prevented if the Band approved permits for Enbridge's proposed erosion prevention measures, such as temporary sandbags or a natural tree revetment, that would fortify the bank from erosion. *See id*. ¶¶ 51-62, Molina Decl. ¶ 23, Weatherly Decl. ¶¶ 14–17. Denied that the conditions at the Meander are dangerous or that a release is imminent or likely. *Id*. ¶¶ 2.b, 27, 37, 48.

19. Since 2014, precipitation events causing heightened flows have occurred in the months of May, June, July, August, September, and October, with July 2016 being the flood of record. *Id.* ¶ 14.c.; WWE Report, Dkt. 268-1, at PDF p. 65 (Table 3).

Enbridge Response: **Admitted.** Enbridge admits that high flow events (which WWE defines as more than a one-year event or around 3,000 cfs, *see* Dkt. 268-1 at PDF p. 61)

have occurred in prior years in the months of May through July and that the flood of record occurred in July 2016.

20. Heightened flows from such events do not have to be extraordinary to cause bank movement. In April 2020, 5 feet of erosion was observed in a one-week period associated with a peak flow of less than 8,000 cfs, which corresponds to a 2-year event. Paton Decl. ¶ 14.d.; WWE Report, Dkt. 268-1, at pp. PDF 70–73. And there is no more dramatic evidence of this point than the events of the past few weeks, where 21.5 feet and 19.5 feet of bank loss has been observed at the M3 and D series, respectively, in the aftermath of 5–10 year flows. Paton Decl. ¶ 6.a- b.

Enbridge Response: **Disputed in part.** Enbridge cannot confirm when a flow rate is "heightened," or an event is "extraordinary." Admitted that the bank loss at M3 and D series following three high water events is likely accurate. Enbridge does not have sufficient facts to admit or dispute that 5 feet of erosion occurred on the Bad River in a one-week period in April 2020. Disputed that any evidence is "dramatic," as the Band provides no support for this description. But in both situations, the stated rate of erosion (less than one foot per day in April 2020 or this Spring at the M3 and D series) is well within Enbridge's capability to initiate and complete a purge (an approximately 40-hour process) before any critical span length (99 feet of aerial span) under Enbridge's Plan. *See* Duncan Decl. ¶ 38-41. And the stated amounts of erosion did not occur in a single storm event, but in a one-month period following three consecutive high water events. *See id.* ¶¶ 2.e, 19.

Further, PFOF 20 assumes no action will be taken at the Meander to prevent future erosion. Future erosion from rainfall events (or any other event) can be prevented through implementation of erosion protection measures. *Id.* ¶¶ 2.h, 2.k, 29. Specifically, future erosion can be prevented if the Band approved permits for Enbridge's proposed erosion prevention measures, such as temporary sandbags or a natural tree revetment, that would fortify the bank from erosion. *See id.* ¶¶ 51-62, Molina Decl. ¶ 23, Weatherly Decl. ¶¶ 14–17. Denied that the conditions at the Meander are dangerous or that a release is imminent or likely. *Id.* ¶¶ 2.b, 27, 37, 48.

C. A Significant Risks Exists that the Pipeline Could Be Undermined and Rupture in the Same Event.

21. Once Line 5 is exposed at the meander neck, the length of exposed pipeline could expand rapidly and unpredictably, resulting in pipeline failure and the release of oil in as little as one storm event. *See* Testimony of Hamish Weatherly (Enbridge expert), Dkt. 608, at 17:7–18:11, 18:21–23; Dkt. 617 at 7–8 (¶7.c.–e.) (describing piping, WWE experience with buried pipelines becoming completely exposed and unsupported for distances of 100 feet or more during single flood events, engineering literature and case studies showing examples of exposure and rupture of pipelines in single flood event, and risk of smaller flood events resulting in significant erosion in short time); WWE Report, Dkt. 268, at PDF p. 39 ("Once a portion of the pipeline becomes exposed, the length of exposure will continue to expand, unpredictably and potentially quite rapidly. A substantial length of pipeline

could become exposed in a single high flow event, or over the course of several high flow events within a short period of time."); WWE Report, Dkt. 268- 2, at PDF p. 12 ("As water impacts the pipeline at the juncture where the pipeline intersects with intact soil, some of the water's force will be redirected toward the soil, producing rapid erosion. As the silty-sandy floodplain deposits are exposed to the erosive impacts of the Bad River, the cross section for water flow will become larger. While the precise rate of the progression of the pipeline exposure cannot be accurately predicted, it is foreseeable that a substantial length of pipeline could be exposed in a single high flow event, or over the course of several high flow events occurring within a short period of time."); Paton Decl. ¶ 14.f.

Enbridge Response: **Disputed.** It is highly unlikely that a critical span of 99+ feet could result "rapidly" from a single storm event ***after the Line was exposed*** but that is not the current status at the Meander. Line 5 is not exposed in any location at the Meander. But disputed that this assertion is material to an assessment of current conditions because the pipe is not exposed, nor is there a likelihood of Line 5 being exposed before Spring 2024, even without any erosion mitigation. Duncan Decl. ¶¶ 2.c, 32; Weatherly Decl. ¶ 8 (5-10% chance of exposure before Spring 2024); LeBlanc Decl. ¶¶ 6–8 (0.32% probability of exposure before Spring 2024). And the probability that the Line becomes exposed, which further develops into a critical span of the pipe in a single storm event this year is even less likely than 0.032%. *See* LeBlanc Decl. ¶¶ 7-8. But even in this unlikely and hypothetical possibility where a single large flooding event did occur that somehow exposed the Line and created an undermined span of 99 feet, it is very unlikely that the pipe would immediately fail during flooding or that failure means the "release of oil": the pipe can remain safely submerged up to a 265-foot span, it would take at least 5 days for the flood waters to recede below the pipe to create an aerial span, and Enbridge's purge process takes approximately 40 hours. Thus, Enbridge's Plan is designed to complete a purge of the Line completed well before any critical span existed. *See* Duncan Decl. ¶¶ 42-46. Denied that the conditions at the Meander are dangerous or that a release is imminent or likely. *Id.* ¶¶ 2.b, 27, 37, 48.

22. In 2011, the Silvertip pipeline became exposed and undermined and ruptured into the Yellowstone River during an episode of prolonged flooding. Gerald E. Davis Expert Report, Dkt. 251-1, at PDF p. 10 ("The exposure, damage, and rupture all happened over the course of a single prolonged flood event."); Paton Decl. ¶ 14.f.

Enbridge Response: **Objectionable Evidence/Disputed that this Event is Similar to the Situation at the Meander.** The Court ruled before and during trial that evidence of unrelated pipeline spills constituted improper propensity evidence. Dkt. 521 at 10 (10/07/22 Order). While the Court permitted that certain evidence of other oil spills may be admissible for the limited purpose of "assessment of damage from an oil discharge," this alleged fact is not offered for this purpose and is offered to show the circumstances that led to a pipeline exposure and rupture. Dkt. 606 at 167:8-12 (Court). Moreover, the Court also made clear that only releases which were "similar" to the situation at the Meander would be admissible. Dkt. 521 at 10. This event is not similar and nothing in this proposed finding of facts even argues for similarity. Further, evidence in record shows it is not similar. Dkt. 606 at 154:5–25 (Band expert Gerry Davis). That notwithstanding,

Enbridge lacks sufficient information to confirm or address this alleged fact as the release in question was not the subject of extensive discovery. From the information that is available, the circumstances of that incident are not relevant here: the Yellowstone River is a faster and more volatile river than the Bad River; and that, unlike Line 5 which runs parallel to the flow of the Bad River, the Silvertip line ran perpendicular to the Yellowstone River. *Id.* The Band's expert was unable to testify as to how long the Silvertip pipeline was entirely suspended and unsupported, or how long the flooding itself lasted, before the pipeline ruptured. *Id.* at 153:15–154:1 (G. Davis). Further, the pipeline operator along the Silvertip pipeline did not have around-the-clock monitoring or a shutdown and purge plan. *Id.* at 159:7-12 (Davis) (testifying that the concern with the Yellowstone spill was that although Exxon did monitor Silvertip, it did not have a viable monitoring or shutdown plan outlining "what you're going to do at certain trigger points"). Finally, the Silvertip release was caused by a pre-existing crack, which is not present in Line 5 at the Meander. *Id.* at 149:3-10, 150:3-6 (G. Davis); Dkt. 607 at 106:8-18 (L. LeBlanc).

23. In 2015, a 24-inch pipeline on the Arkansas River in North Little Rock, Arkansas, failed after its critical span length was exceeded when high water levels eroded the ground cover and exposed the pipeline to the river's flow. WWE Report App. I, Dkt. 484-12, at PDF p. 4.

Enbridge Response: **Objectionable Evidence/Disputed that this Event is Similar to the Situation at the Meander.** Enbridge does not possess sufficient information to admit or dispute whether a 24-inch pipeline on the Arkansas River in North Little Rock, Arkansas failed after its critical span length was exceeded when high water levels eroded the ground cover and exposed the pipeline to the river's flow. Moreover, the Court ruled before and during trial that evidence of unrelated pipeline spills constituted improper propensity evidence. Dkt. 521 at 10; Dkt. 606 at 167:8-12. Enbridge incorporates by reference its Response to PFOF No. 22. Moreover, the Court also made clear that only releases which were "similar" to the situation at the Meander would be admissible. Dkt. 521 at 10. This event is not similar and nothing in this statement of facts even argues for similarity. Further, evidence in record shows it is not similar. Dkt. 606 at 154:5-25 (G. Davis) (testifying that the Yellowstone spill "is the only spill" that is "substantially similar to the spill that could potentially happen [at the Meander]."). From the information that is available, the circumstances of that incident are not relevant here: the Arkansas failure was a result of "vortex-induced vibration after high water levels eroded the ground cover and exposed the pipeline to the river's flow," which is not the primary integrity concern with a hypothetical Line 5 exposure. *See* WWE Report App. I, Dkt. 484-12 at 4; Dkt. 608 at 10:12-23 (D. Tetteh-Wayoe) (testifying vortex-induced vibrations are not a primary concern at the Meander); Dkt. 612 at 4-5 n.3 (the "least likely" integrity threat).

24. In 2011, a natural gas pipeline on the Missouri River in Iowa ruptured when the pipeline was exposed, exceeded its critical span, and failed during a single bout of flooding. WWE Report App. I, Dkt. 484-12, at PDF p. 5.

Enbridge Response: **Objectionable Evidence/Disputed that this Event is Similar to the Situation at the Meander.** Enbridge does not possess sufficient information to admit or dispute this fact. Moreover, the Court ruled before and during trial that evidence of

unrelated pipeline spills constituted improper propensity evidence. Dkt. 521 at 10; Dkt. 606 at 167:8-12. Enbridge incorporates by reference its Response to PFOF No. 22. Moreover, the Court also made clear that only releases which were "similar" to the situation at the Meander would be admissible. Dkt. 521 at 10. This event is not similar and nothing in this statement of facts even argues for similarity. Further, evidence in record shows it is not similar. Dkt. 606 at 154:5-25 (G. Davis) (testifying that the Yellowstone spill "is the only spill" that is "substantially similar to the spill that could potentially happen [at the Meander]."). From the information that is available, the circumstances of that incident are not relevant here: this pipeline's rupture was a result of a "fatigue crack [that] grew due to vibrations in the pipe from vortex shedding caused by water flow past the pipe," which is not a concern with a hypothetical Line 5 exposure. *See* WWE Report App. I, Dkt. 484-12 at 5; Dkt. 607 at 106:8-18 (L. LeBlanc) (testifying that likelihood of cracking is very small); Dkt. 608 at 10:12-23 (D. Tetteh-Wayoe) (testifying vortex-induced vibrations are not a primary concern at the Meander); Dkt. 612 at 4-5m n.3 (the "least likely" integrity threat).

25. In 2012, a 12-inch crude pipeline operated by Plains Midstream Canada ruptured after reaching its critical span, likely failing in the same flood that exposed it. WWE Report App. I, Dkt. 484-12, at PDF p. 6.

Enbridge Response: **Objectionable Evidence/Disputed that this Event is Similar to the Situation at the Meander.** Enbridge does not possess sufficient information to admit or dispute this fact. Moreover, the Court ruled before and during trial that evidence of unrelated pipeline spills constituted improper propensity evidence. Dkt. 521 at 10; Dkt. 606 at 167:8-12. Enbridge incorporates by reference its Response to PFOF No. 22. Moreover, the Court also made clear that only releases which were "similar" to the situation at the Meander would be admissible. Dkt. 521 at 10. This event is not similar and nothing in this statement of facts even argues for similarity. Further, evidence in record shows it is not similar. Dkt. 606 at 154:5-25 (G. Davis) (testifying that the Yellowstone spill "is the only spill" that is "substantially similar to the spill that could potentially happen [at the Meander]."). From the information that is available, the circumstances of that incident are not relevant here: this pipeline's rupture was a result of identified depth of cover concerns—less than three feet depth of cover—prior to flooding that was not properly addressed and resulted in "high-cycle fatigue" during extreme flooding. WWE Report App. I, Dkt. 484-12 at 6. No depth of cover issues existed prior to flooding (or currently) at the Meander that would pose pipeline integrity concerns should the pipe become exposed. Dkt. 608 at 51:19-22 (H. Weatherly testifying Line 5's depth of cover to be between five and six feet); Duncan Decl. ¶ 44 (roughly 6.5 feet of cover above pipeline at the Meander).

26. And in 1994, four pipelines were exposed and ruptured during a single flood event on the San Jacinto River in Texas when the river cut a new channel through a meander where the pipelines were located. WWE Report App. I, Dkt. 484-12, at PDF p. 7.

Enbridge Response: **Objectionable Evidence/Disputed that this Event is Similar to the Situation at the Meander.** Enbridge does not possess sufficient information to admit

or dispute this fact. Moreover, the Court ruled before and during trial that evidence of unrelated pipeline spills constituted improper propensity evidence. Dkt. 521 at 10; Dkt. 606 at 167:8-12. Enbridge incorporates by reference its Response to PFOF No. 22. Moreover, the Court also made clear that only releases which were "similar" to the situation at the Meander would be admissible. Dkt. 521 at 10. This event is not similar and nothing in this statement of facts even argues for similarity. Further, evidence in record shows it is not similar. Dkt. 606 at 154:5-25 (G. Davis) (testifying that the Yellowstone spill "is the only spill" that is "substantially similar to the spill that could potentially happen [at the Meander].").

D. A Rupture is Sufficiently Close to Occurring as to Necessitate Action by this Court.

27. There exist at least three different locations where less bank remains than has been lost in the last month, in some cases by a substantial margin. Paton Decl. ¶ 6.a.-c. (D series where 19.5 feet lost and 14.5 feet remains; M3 series where 21.5 feet lost and 12.5 feet remains; E series where 14.5 feet lost and 11 feet remains). The pace and breadth of erosion has been dramatic, with as many as 3–4 feet of bank being lost in a single day and 10.5–11.5 feet in a single week. Paton Decl. ¶¶ 6.b., 7 (Figure 3).

Enbridge Response: **Disputed in part.** Enbridge admits the amount of bank loss and current pipe-to-bank distances are approximately correct. Disputed that the "pace and breadth of erosion has been dramatic." The stated rate of erosion (3-4 feet per day or 11 feet in one week) is well within Enbridge's capability to initiate and complete a purge (an approximately 40-hour process) before any critical span length (99 feet of aerial span) under Enbridge's Plan. *See* Duncan Decl. ¶¶ 38-41. The loss of bank is most prevalent as the water recedes, and therefore, during this time there is no impediment to continuing to purge while sloughing at this rate occurs. *See id.* ¶¶ 42-46.

28. Enbridge's former director of operations for the Midwest region, who would oversee any purge of Line 5 on the Bad River Reservation, testified at trial that it would take 48 hours to physically execute a purge of the pipeline segment that crosses the Bad River. Testimony of Trent Wetmore ("Wetmore Testimony") (Enbridge witness), Dkt. 608, at 73:1–2 ("roughly 48-hour process").

Enbridge Response: **Disputed in part.** Enbridge admits that Trent Wetmore testified to the above. At present, however, Enbridge anticipates the segment of Line 5 within the Reservation can be purged in approximately 40 hours. *See* Teitelbaum Decl. ¶¶ 6-7.

29. Enbridge's has elsewhere similarly represented that it would take 45 hours to physically execute the purge. Trial Ex. 70 at PDF p. 10 (**REDACTED FROM PUBLIC FILING**").

Enbridge Response: **Disputed in part.** Enbridge has previously represented it would take 45 to 48 hours to execute a purge. However, since its original assessment, Enbridge has continued assessing a purge at this location and is confident that the purge process could be completed more quickly in slightly less than 40 hours after purge staging and preparedness

activities are complete. *See* Teitelbaum Decl. ¶¶ 6, 7. The Response to PFOF No. 28 is incorporated herein by reference.

30. This 45- to 48-hour timeline does not include the time required to acquire and stage nitrogen and other necessary equipment. Testimony of Deb Tetteh-Wayoe ("Tetteh-Wayoe Testimony") (Enbridge witness), Dkt. 608, at 3:23–4:18 ("Q: Does that include the time necessary for ordering nitrogen and allowing it to get to the site? A: Nope. That was just for the purge."); *id.* at 5:8–14 ("Q: So am I correct that the actual purge process would require 24 hours' notice plus 36 to 46 hours to get the nitrogen on site in addition to the 45 hours that's represented in your plan? A: Yes, there's a few days of prework. Q: So up to about five days? A: Could be. Yeah, usually three—three to five days maybe of prep work."); Wetmore Testimony (Enbridge witness), Dkt. 608, at 72:21–73:2 (explaining that, after "we make the decision [and] we have everything prepared there.… then we would launch—launch those pigs and start that roughly 48-hour process.").

Enbridge Response: **Disputed in Part.** Enbridge admits that the current estimated timeline of 40 hours does not include "the time required to stage nitrogen and other necessary equipment." Due to Enbridge's commitment to undertake advanced purge staging efforts based on forecasting and thus, *before* a purge would be executed, Enbridge has either already completed many of those pre-purge actions or will have planned to have done so prior to recommending a purge based on observation of conditions and forecasts. *See* Teitelbaum Decl. ¶¶ 4-5; Duncan Decl. ¶¶ 48-49.

31. Purging requires the pipeline to remain operational. Wetmore Testimony (Enbridge witness), Dkt. 608, at 69:13–71:9 (describing need to continue running oil through the pipeline to transport pigs from launch site at Superior to valve near Reservation where nitrogen would be injected); *see also* Trial Ex. 70 at PDF p. 10 (**REDACTED FROM PUBLIC FILING**).").

Enbridge Response: **Admitted.** The purge process requires the pipeline to remain operational until the injection of nitrogen is complete.

E. The Present Nuisance Results from Enbridge's Actions and Warrants an Injunction.

32. Enbridge's applications for its revetment proposals uniformly state that construction must take place during low-flow conditions in late summer or fall. *See* Trial Ex. 131 at 5 (Apr. 2, 2020 tree revetment application) ("Enbridge plans to begin work as soon as conditions are appropriate in the late summer or fall … (low-flow conditions are needed).… Activities will occur outside the time period from April 1 to June 1 to minimize adverse impacts on fish movement, fish spawning, egg incubation periods and high stream flows."); Trial Ex. 133 at 21 (Dec. 9, 2020 tree revetment application) ("Enbridge plans to begin work as soon as conditions are appropriate (low-flow) in the late summer or fall …."); *id.* at 585 (Mar. 9, 2021 tree revetment application) (same); Trial Ex. 138 at 19 (July 23, 2021 rip rap revetment application) (same); Trial Ex. 140 at 21 (May 27, 2022 rip rap revetment application) (same).

Enbridge Response: **Disputed**. Each of Enbridge's applications submitted prior to trial (i.e., 2020-2022) state that construction should begin "as conditions are appropriate." Trial Ex. 131, at 5; Trial Ex. 133 at 21; Trial Ex. 138 at 19; Trial Ex. 140 at 21; Molina Decl. ¶ 5 ("Enbridge's project applications for revetment have never stated that work could *only* occur during low-flow conditions . . .Work on these projects could occur during other referenced times . . . just with different environmental impacts."). Enbridge proposed other times to satisfy the Band's preference to perform work "during the least environmentally impactful periods." *Id.* Construction can take place during the spring and summer and not only during the times referenced in this alleged statement of facts. *Id.* Enbridge also has submitted two projects in May 2023 that could be installed before "late summer or fall," if the Band were to approve either project. *See* Molina Decl. ¶¶ 6-7, 22-23. Duncan Decl. ¶¶ 41-52. In short, various mitigation measures could be taken at the Meander now if the Band would only approve them. *Id.*

33. Discussions regarding valves (the details of which are confidential) have yielded an application by Enbridge to install a check valve on the Reservation, the details of which the parties remain actively engaged on. Decl. of Naomi Tillison ¶ 3.

Enbridge Response: **Disputed in part.** Enbridge purchased a check valve and submitted an application to the Band to install it downstream of the Meander, however, the Band has yet to approve Enbridge's application. Duncan Decl. ¶ 39. Since Enbridge first proposed EFRD installation in 2015 and then re-offered to install them in 2022, the Band has yet to approve installation of any type of valve at any location near the Meander. Dkt. 608 at 78:12–14, 79:6–14 (Wetmore).

F. The Band Should Not Be Penalized for its Reluctance to Adopt Enbridge's Erosion Mitigation Proposals.

34. The Court has found that Enbridge has known it was trespassing since it began doing so in June 2013. *See* Summary Judgment Order and Opinion, Dkt. 360, at 32 ("[O]n this record, a reasonable jury would have to find that Enbridge was a conscious trespasser[.]"); *id.* at 33–34 (rejecting Enbridge's excuses for having continued trespassing after 2013, finding that "Enbridge was well-aware that it lacked a valid easement over the parcels, and it knew or should have known that federal law required both the Band's and BIA's approval."); *see also* Dkt. 168 at PDF pp. 38–39 & n. 11 (quoting over a dozen internal Enbridge communications acknowledging trespass starting in 2013)

Enbridge Response: **Admitted** that the Court concluded on summary judgment that Enbridge was a "conscious trespasser" beginning in June 2013, and Enbridge disputes this finding for the reasons provided in opposition to the summary judgment and in Enbridge's own motion for summary judgment. *See* Dkt. 207 (Enbridge's Opp'n to Summ. J.); Dkt. 231 (Enbridge's Br. in Supp. of Partial Summ. J.).

35. As early as 2015, Enbridge officials acknowledged internally that the company needed to make plans to reroute the pipeline. *See* Wetmore Testimony, Dkt. 610, at 8:7–9:11 (testifying about Exhibit 363, an internal email stating that "[w]e're in

the middle of some negotiations with the Tribal Band in Wisconsin over an expired easement renewal along 5. We're hopeful we'll be successful in our renewal, but I also want to be working on a relocation and alternative in parallel."); *see also* Trial Ex. 334 (summary exhibit depicting Enbridge internal reroute timeline) (admitted into evidence, *see* Joint Stipulated List of Exs. Admitted at Trial ("Trial Ex. List"), Dkt. 597, at 14).

Enbridge Response: **Disputed in part.** Enbridge disputes the Band's characterization of Enbridge personnel's statements. Mr. Wetmore (former Director of Operations) testified that the company's preliminary planning in 2015 constituted "contingency planning" during discussions with the Band about long-term operations on the Reservation. *See* Dkt. 610 at 9:6–10 (T. Wetmore).

36. In the ensuing years, Enbridge employees continued to discuss the need for a reroute. *See* Trial Ex. 334 (summary exhibit depicting timeline of Enbridge internal reroute deliberations from 2015 through 2020) (admitted into evidence, *see* Trial Ex. List, Dkt. 597, at 14); *see also* Wetmore Testimony, Dkt. 610, at 9:16–12:16 (testifying about Exhibit 369, a September 5, 2017 internal Enbridge email about a status update on the Line 5 reroute project).

Enbridge Response: **Admitted**, and Enbridge's project permits to construct the reroute are pending.

37. In January 2017, the Band passed a resolution insisting that Enbridge leave its land. *See* Trial Ex. 400 (01/04/17 Bad River Band Tribal Council Resolution No. 1-4-17-738); *see also* Wetmore Testimony, Dkt. 610, at 44:25–45:3 (acknowledging that in January 2017, the Band passed a resolution declaring that it would not renew Enbridge's easements).

Enbridge Response: **Admitted.**

38. Enbridge did not file the permit applications for the reroute until February 2020. *See* Wetmore Testimony, Dkt. 610, at 47:4–15 ("February of 2020 is when we actually filed our permit."); *see also* Trial Ex. 334 (summary exhibit depicting timeline of Enbridge internal reroute deliberations from 2015 through 2020) (admitted into evidence, *see* Trial Ex. List, Dkt. 597, at 14).

Enbridge Response: **Admitted.** Enbridge did not pursue permit applications while it participated in a two-year long confidential mediation with the Band from 2017 to July 2019, which ended unsuccessfully when the Band filed this lawsuit against Enbridge. *See* Dkt. 610 at 46:6-17 (T. Wetmore) (testifying that it did not make sense for Enbridge to formalize and pursue a reroute project during mediation, and Enbridge officially decided to proceed with a reroute project about a month after the Band ended the mediation).

39. In mid-2019, Enbridge executives choosing between an inner reroute barely skirting the Reservation and more expensive reroutes further from the Reservation expressed a preference for the inner reroute but, knowing that it would "trigger

staunch opposition" from the Band, they did not inform the Band of their intent to pursue the inner route. *See* Trial Ex. 334 (summary exhibit depicting timeline of Enbridge internal reroute deliberations from 2015 through 2020) (admitted into evidence, *see* Trial Ex. List., Dkt. 597, at 14); *see also* Trial Ex. 371 at p. 6 (PowerPoint slide with notes conveying the inner and outer Line 5 Potential Reroute Options).

Enbridge Response: **Disputed.** The Band's purported "fact" is not a factual assertion but instead is an impermissible argument. Enbridge considered the feasibility and cost of numerous reroute paths, and Enbridge did not choose or prefer a route based on whether the Band opposed it or not, but the driving force was feasibility of a route and minimizing environmental and other impacts. *See* Dkt. 611 at 16:4-7 (J. Molina) ("We looked at a number of route alternatives. This alternative had the least amount of wetland impacts and the least amount of water-body crossings in consideration of wetland impacts and other feasible factors."); *id.* at 20:14–20 (J. Molina) (Enbridge evaluated the reroute outside of the watershed at a high level and determined it could not pursue this route because "Enbridge would not be able to demonstrate that this would be the least environmentally damaging practicable alternative" as required by the DNR); *id.* at 20:21–21:2 (J. Molina) ("It has a great deal more wetland impacts and waterway crossings -- all of the green areas that you see on the figure are public -- either state or federal land as well as the river -- the Namekagon River, which is designated as a wild and scenic riverway, and requiring an easement crossing would require an act of congress.").

40. Internally, some Enbridge employees expressed concern that Enbridge was misleading the public by messaging that the company was considering other reroute paths despite intending to pursue the reroute path that barely skirted the Bad River Reservation. *See, e.g.*, Designated Dep. Testimony of Sara Ploetz, Dkt. 564,[1] at 108:22–109:3 (testifying about internal communication in which Ms. Ploetz had written, "Does it seem disingenuous if we go public this Thursday or Friday with very general messaging on evaluating different alternatives and turn around a week and a half later with boots on the ground survey of a specific route?").

Enbridge Response: **Disputed.** The Band mischaracterizes Sara Ploetz's deposition testimony. Ms. Ploetz testified that her concern was making sure that she was being clear about Enbridge's intentions for a reroute because there could be inaccurate implications drawn by the public from Enbridge's conducted survey of a particular route, and she "wanted to be sure it [was] clear information [ ] going out." Dkt. 564 at 109:19–24, 110:10–12. Ms. Ploetz did not testify that she was concerned with Enbridge misleading the public or that any misleading or false statements were made. *See id.*

41. At trial, Enbridge's excuse for not having pursued a reroute earlier was that it would have looked "insincere" to take steps toward a reroute while engaged in mediation with the Band from May 2017 to July 2019. *See* Wetmore Testimony, Dkt. 610, at 45:12–46:13 (testifying that mediation lasted from around May 2017

[1] This particular docket entry was filed under seal, but redactions have not been made on this citation because there is a publicly accessible version of the same transcript available at Dkt. 438.

to July 2019); *id.* at 45:22–46:9, 54:7–11 (testifying that Enbridge's goal in the mediation was to obtain a renewal of the easement and that it would have seemed "insincere" to pursue reroute permits at the same time).

Enbridge Response: **Disputed in part.** Enbridge disputes the characterizations, but does not dispute that Trent Wetmore testified that Enbridge waited to pursue a reroute until mediation ended because Enbridge "hope[d] during the mediation [that it would] obtain renewed easements from the Band." Dkt. 610 at 45:22–24. Enbridge waited to get "'boots on the ground' and to perform the environmental assessments needed to accompany the [reroute] permit" once mediation ended because it did not "make sense for Enbridge, during the mediation period, to have formalized and proceed[] with a reroute project[.]" *Id.* at 45:22–47:11 (T. Wetmore).

42. Enbridge knew that the reroute would cost at least $450 million. *See* Expert Report of Dan Leistra-Jones ("Leistra-Jones Report"), Dkt. 583, at PDF p. 23 (depicting proposed inner reroute and quoting Enbridge-commissioned report from 2021 stating that the reroute was estimated to cost $450 million); *see also* Narrative Summary of Dep. of Enbridge 30(b)(6) Witness Robert Yaremko, Dkt. 542, at 5 (quoting 30(b)(6) witness as responding in his August 2022 deposition to a question about the current estimated cost of the "inner reroute" by saying, "I believe Enbridge has publicly disclosed an estimated cost of 450 million").

Enbridge Response: **Admitted** that Enbridge has estimated the reroute would cost $450 million, but because the project is not yet complete the total costs of the project cannot be defined.

43. Enbridge benefited to the tune of about $25 million each year that it delayed construction of the reroute. *See* Leistra-Jones Report, Dkt. 583, at PDF p. 27 (calculating that, based on Enbridge's time value of money, Enbridge will have gained $296,234,750 by delaying its $450 million expenditure from 2013 until 2025, or $272,070,977 by delaying the expenditure from 2013 until 2024).

Enbridge Response: **Disputed.** The Band's purported "fact" is not a factual assertion at all, but instead is an impermissible argument and unsupported speculation from Band expert witness Dan Leistra-Jones, whose opinion on profits-based relief was already rejected by the Court. *See* Dkt. 521 at 2–3 (10/07/22 Order). This damages theory is immaterial and plainly wrong.

44. After Enbridge submitted its permit request and publicly announced its intent to reroute the pipeline, internally Enbridge executives were analyzing the financial benefits to be gained from further delays. *See* Wetmore Testimony, Dkt. 610, at 19:21–23:18 (testifying about Exhibit 376, a March 24, 2020 email that stated that "[w]hether to go to the board with the reroute in May, [President of Liquid Pipelines Vern Yu] does not want to take the project to board in May, given the status of the tunnel and fluidity of the drivers across both projects," and that "[t]he project team

is working on analysis of leavers [sic] to defer, slash, optimize spend without relaxing schedule in addition to assessing cost-savings benefits through possible delay scenarios"); *id.* at 23:15–18 ("Q: [D]o you have any reason to doubt that the instruction had been given to assess the potential benefit to potentially delaying the reroute? A: It looks to me like there was a request for that.").

Enbridge Response: **Disputed.** The Band mischaracterizes Trent Wetmore's trial testimony. Mr. Wetmore testified that he did not know, and could not speculate, whether one of those decisions that had been made was to assess cost-savings benefits. Dkt. 610 at 23:4–14 ("[F]rom what my recollection is, we pushed as hard and quickly as we could to push to proceed with the project."). Further, the Band quotes only a portion of Mr. Wetmore's response, and intentionally left out his testimony that "[w]hether that [cost-benefit analysis] happened or not, I can't say." *Id.* at 23:18–19. Additionally, Mr. Wetmore also testified that the cost-benefit analysis being requested was whether the project team could "put more risk tolerance into the overall cash flow with – with acquiring pipe and fittings . . . and whether we should do that earlier or delay" given the application had not yet been authorized. *Id.* at 49:22-50:13. The Band has not presented any actual evidence, and no evidence exists on the record, that Enbridge analyzed financial benefits to be gained from re-route delays. Indeed, evidence at trial was presented that there were no financial benefits gained from any delays. *Id.* at 51:4-11 (T. Wetmore). Finally, the Band is itself attempting to stop and/or delay the re-route. Dkt. 611 at 19:3–9 (J. Molina); *id.* at 18:23-19:1 (acknowledging the "various materials on the record that [the Band] oppose[s] [the reroute]) (Conley, J.).

G. A Rupture Poses a Catastrophic Threat to the Broader Public.

45. A full-bore rupture (FBR) of Line 5 at the Bad River meander would result in 21,974 barrels (922,908 gallons) of oil entering the Bad River, which is located 16 miles upstream of Lake Superior. *See* Expert Rebuttal Report of Matthew Horn, Dkt. 478, at PDF p. 18 (Enbridge FBR scenarios use 21,974 barrels (922,908 gallons)); *id*. at PDF p. 53 ("FBR volumes for each hypothetical release location along the pipeline were provided to RPS by Enbridge on August 4, 2020 and depended on pipeline flow rate, shutdown time, the type of product being released, and the elevation profile of the pipeline. FBR release volumes were calculated to include active pump out during a 13-minute identification of the rupture, analysis of the pipeline condition, pipeline shutdown and full valve closure in the affected pipeline section, as well as the gravitational drain down once the valves were closed."); WWE Report, Dkt. 268, at PDF p. 27 ("The meander in question is located approximately 16 miles upstream (south) of Lake Superior on the Bad River (Figure ES-1).").

Enbridge Response: **Disputed.** Enbridge expert Dr. Matthew Horn opines that this volume estimate is the potential worst-case scenario based upon (1) a highly conservative time estimate (13 minute identification of the rupture before valve closure), even though earlier identification would reduce the hypothetical volume released. Dkt. 478 at 53. Also, even if a "full bore" pipeline rupture did occur, pipe failure does not mean the release of any oil would also occur because execution of Enbridge's Plan enables Enbridge to purge

the Line before any critical span arises. Dkt. 601 at 141:7-142:7, 143:15-19, 146:3-19 (D. Tetteh-Wayoe). Finally, Enbridge has offered multiple times to install emergency flow restriction devices ("EFRDs") that would reduce the volume of oil within the shut-down segment of pipe following a rupture. Dkt. 608 at 79:4-14 (T. Wetmore); *id.* at 79:19–21 ("These would create the ability to shut off a distance of five miles of oil within about three minutes of -- of that being ordered."). Enbridge initially proposed to install EFRDs in 2015 and then re-offered to install them in 2022; the Band still has not approved, or indicated it would approve, this project. Dkt. 608 at 78:12–14, 79:4–14 (T. Wetmore); *see* Duncan Decl. ¶ 50.

46. If Line 5 were shut down but not purged at the time of a rupture at the meander, 20,000 barrels (840,000 gallons) of oil would be released into the Bad River. *See* Wetmore Testimony, Dkt. 608, at 65:2–9 (valves used to shut down portion of Line 5 that transects Bad River Reservation are located 14 miles apart on either side of the Reservation); *id.* at 85:4–86:23 (Line 5's maximum volume between those two valves is approximately 20,000 barrels (840,000 gallons)); Tetteh-Wayoe Testimony, Dkt. 608, at 4:5–8 (purge time).

Enbridge Response: **Disputed in part.** Enbridge admits that this is the maximum amount of volume that *could* be released into the Bad River, but this assumes that the Line was not purged, and a release were to occur, the risk for which is mitigated by Enbridge's Plan and can be further mitigated by erosion prevention measures and installation of a valve(s) on the Reservation, if the Band were to approve these measures. *See* Duncan Decl. ¶¶ 50-51; Molina Decl. ¶ 3. The Response to PFOF No. 45 is incorporated herein by reference as if set forth in full.

47. The 2010 spill at Enbridge's Line 6B resulted in 20,080 barrels (873,600 gallons) of crude oil entering Talmage Creek and the Kalamazoo River. *See* WWE Report App. D, Dkt. 484-7, at PDF p. 45; WWE Report App. I, Dkt. 484-12, at PDF pp. 12–14.

Enbridge Response: **Disputed.** The National Transportation Safety Board's report entitled *Enbridge Incorporated Hazardous Liquid Pipeline Rupture and Release, Marshall, Michigan, July 25, 2010 Pipeline Accident Report NTSB/PAR-12/01 (2012)*, states that "the total release was estimated to be 843,444 gallons of crude oil." *See* https://www.ntsb.gov/investigations/AccidentReports/Reports/PAR1201.pdf; *see also* WWE Report App. I, Dkt. 484-12 at 13.

48. Under the spill scenarios evaluated by both Parties' experts ranging from roughly 2,000 to 22,000 barrels, a spill at the meander would rapidly spread downstream, devastating not only the Bad River watershed but also large swaths of the Kakagon-Bad River Slough complex *and* Lake Superior. *E.g.*, WWE Report, Dkt. 268, at PDF p. 40; WWE Report, Dkt. 268-2, at PDF pp. 18, 23, 63, 64, 75; Expert Report of Joshua Anderson, Dkt. 487-2, at PDF pp. 6–8, 10–12 (figures showing results of oil spill scenario modeling in Lake Superior); *id.* at PDF p. 16; Expert Rebuttal Report of Matthew Horn, Dkt. 299, at PDF pp. 23–26 (figures depicting the time and contact probability); *id.* at PDF pp. 8–9; Horn Rebuttal Report

App. A, Dkt. 299-1, at PDF p. 11; *id.* at PDF p. 14; Dep. Testimony of Matthew Horn, Dkt. 348, at 65:1–4.

Enbridge Response: **Disputed in part.** Enbridge admits that under the spill scenarios evaluated by the parties' experts, it is possible that less than 10 barrels could move down the Bad River and past designated containment and collection control points and reach Lake Superior. Dkt. 478 at 43 (Horn Report). It is disputed that any release, or any scenario described, "would" occur; the effects, and movement downstream depend entirely on volume and environmental conditions at the time of the release. *See id.* at 54 (opining that river flow conditions were the "dominant factor" in surface oil flowing downstream on the Bad River). Dr. Horn opines that Band expert witnesses WWE and Anderson significantly overstate the potential for effects following any release from Line 5 at the Bad River crossing, particularly for oil that may enter Lake Superior, primarily because they do not account for any emergency response mitigation measures. *Id.* at 9, 42; *see also* Dkt. 608 at 136:1-8 (S. Lloyd) (Enbridge's control center would observe rupture "right away" based on irregular data reporting). Even conservatively estimating that deployment of emergency response measures, Dr. Horn opined that those measures would commence downstream "16 hours before WWE predicts oil would reach Lake Superior, and thus WWE's model overestimates the amount of oil that could enter the Lake." "[B]ased on more realistic assumptions," where Enbridge would deploy "available equipment caches, appropriate response timing, conservative equipment effectiveness (i.e., reduced collection potential), and other information provided by Enbridge personnel and spill contingency plans," RPS predicted that "only approximately 0.4% of the oil (or ~8 bbl) would move down the Bad River and past designated containment and collection control points and reach Lake Superior." Dkt. 478 at 43. The Response to PFOF No. 45 is incorporated herein by reference as if set forth in full.

49. Both Parties' experts developed animated modeling confirming that crude oil would contaminate long stretches of Lake Superior's pristine shoreline. Dkt. 299-2 (Enbridge expert Horn's modeling video of "Surface Oil Concentration and Total Hydrocarbons on the Shoreline," https://www.dropbox.com/s/oqqakgd93xlo0xo/RPS_L5_Lake_Superior_FBR%20%282%29.mp4?dl=0); Dkt. 487-3 (Band expert Anderson's modeling video, https://www.dropbox.com/scl/fo/e3c6zy34xe5izlp7l3lcc/h?dl=0&rlkey=fcpwq9yrvcej6v76lbh1c08ii).

Enbridge Response: **Disputed in part.** The responses to PFOF Nos. 45-48 are incorporated herein by reference as if set forth in full. Enbridge disputes the characterization that both parties share the opinion that oil released from Line 5 "would contaminate long stretches of Lake Superior's pristine shoreline." Dr. Horn's animated modeling *assumed* a completely "unmitigated full-bore rupture" and release (an assumption he believed was a worst-case scenario and not reasonable to assume) and used an input of 12,600 bbl entering Lake Superior, an assumption of the Band's expert witnesses with which Dr. Horn also did not agree. Dkt. 478 at 62, 78 (Dr. Horn Report). When evaluating the effects of a release based upon a reasonable mitigation effort, he opined that "only approximately 0.4% of the oil (or ~8 bbl) would move down the Bad River and past designated containment and collection control points and reach Lake Superior." Dkt. 478 at 43. Moreover, Dr. Horn opines that

Anderson's "modified particle tracking model is not appropriate for oil" and thus, is not a reliable or accurate modeling to confirm how crude oil would contaminate the water. Dkt. 478 at 11.

50. A rupture of Line 5 at the Bad River meander poses a catastrophic threat to the public. PFF ¶¶ 45–49, 51–53.

Enbridge Response: **Disputed in part.** Enbridge denies any rupture will occur or is likely to occur. Weatherly Decl. ¶ 14; Duncan Decl. ¶¶ 2.b, 37-49. Enbridge admits that a hypothetical rupture of Line 5 when it contains oil or natural gas liquids that releases in the Bad River can pose a threat to the public. Disputed that *any* rupture poses a threat where Enbridge has implemented a Monitoring, Shutdown and Purge Plan whereby Enbridge frequently monitors the Meander and would execute a purge of the Line 5 segment, emptying the Line of product before any rupture could or might occur**.** *See id*. There is no evidence submitted by the Band that Enbridge would not follow Enbridge's Monitoring, Shutdown and Purge Plan or its emergency response plans.

51. A pipeline rupture will endanger the Band's commercial and subsistence fisheries, wild rice harvest, and other cultural activities. WWE Report, Dkt. 268-2, at PDF pp. 46–47, 64, 66; Trial Ex. 8 at 5 (maps of Band's hunting and fishing areas).

Enbridge Response: **Disputed in part.** *See* Response to PFOF No. 50, which is incorporated herein by reference in full.

52. The Band and its members have long relied on fishing, wild rice, medicines, and other plants and animals from the Bad River and Lake Superior. Fish harvest occurs year-round, with many tribal members fishing in the spring and fall as migratory fish enter the Bad River to spawn. Testimony of Dylan Jennings, Dkt. 599, at 71:2–22; Testimony of Joe Dan Rose, Dkt. 599, at 113:1–9, 119:20–121:15.

Enbridge Response: **Admitted.**

53. A pipeline rupture poses grave human health consequences. WWE Report, Dkt. 268-2, at PDF pp. 63, 66.

Enbridge Response: **Disputed in part.** A pipeline release may, under certain conditions, pose human health consequences, but a pipeline rupture may not if the pipeline is purged of all its product or if the release is contained. *See* Response to PFOF No. 50, which is incorporated herein by reference in full.

H. The Market Will Adjust in Response to a Line 5 Shutdown.

1. Crude Oil

54. When Line 6B spilled into the Kalamazoo River in 2010, it caused a shutdown of Line 6B (now Line 78) that lasted "several months." Testimony of Neil Earnest ("Earnest Testimony"), Dkt. 610, at 116:3–15.

Enbridge Response: **Disputed in part.** Admitted that Neil Earnest testified a Line 6B shutdown lasted several months, but dispute its application to Line 5 or the circumstances here. There is no evidence in the record that supports the proposition that a permanent closure of Line 5 would have the same market implications as the temporary closure of Line 6B. Mr. Earnest testified that the impacts of a Line 5 shutdown would be different from those of the Line 6B shutdown. *See* Dkt. 610 at 116:10–24 (N. Earnest) (explaining that unlike Line 78, Line 5 also carries NGLs and its closure will cause "chaos" in the propane markets because "the solutions for propane are s[l]im").

55. In 2010, Line 6B had a capacity of 240,000 barrels per day (bpd) of crude oil. *See* Trial Ex. 198 at p. 34 (2014 Q4 Enbridge Energy, L.P. FERC Financial Report FERC Form No. 6: Annual Report of Oil Pipeline Companies and Supplemental Form 6-Q: Quarterly Financial Report) (admitted as Trial Ex. 198) (describing 2012 project to increase capacity of Line 6B from 240,000 bpd to 500,000 bpd).

Enbridge Response: **Admitted.**

56. According to Enbridge's expert Neil Earnest, the pipeline shutdown resulting from the Kalamazoo River did not have "sizable price impacts for refined product in the Detroit/Toledo area," which is "consistent with [his] analysis here regarding a Line 5 shutdown." Earnest Testimony, Dkt. 610, at 116:3–15.

Enbridge Response: **Disputed in part.** Admitted that Mr. Earnest testified to the quoted language, but the "impacts [a]re different" than if a Line 5 shutdown occurred because the pipeline that shutdown due to the incident on the Kalamazoo River did not ship natural gas liquids (NGLs), which Line 5 does. Dkt. 610 at 116:20-24 (Earnest) ("[Line 6B] was a crude-oiling impact. Line 5 is crude and propane."); *id.* at 116:16-19 (Conley, J.) ("[T]he impacts were different . . . but nevertheless felt in the market.").

57. Mr. Earnest has opined that a shutdown of Line 5 would cause gasoline prices to rise by less than 1 cent per gallon in Michigan and Wisconsin. Expert Report of Neil Earnest ("Earnest Report"), Dkt. 495, at PDF pp. 72–73.[2]

Enbridge Response: **Disputed in part.** Admitted that Mr. Earnest's report estimates that the costs per gallon of oil could increase by approximately .5 cents in Michigan and Wisconsin, but PFOF 57 is incomplete and misleading as that is not the only metric to measure shutdown impacts to gasoline. PFOF No. 57 also assumes that one or more

[2] This version of Mr. Earnest's report was admitted as part of the trial record per Dkt. 575 (Joint Stipulation as to Exhibits Admitted with Expert Reports) and was filed under seal. However, a redacted public version of Mr. Earnest's report is available at Dkt. 262. All the information for which his sealed report is cited in this Proposed Findings of Fact is visible in the redacted public version, so redactions to information in the report have not been made in this Proposed Findings of Fact.

transportation alternatives to Line 5 have been implemented/constructed, which may take years to complete. *See* Expert Report of William Rennicke ("Rennicke Report"), Dkt. 462 at 5 (explaining that "[r]ail is thus the most likely transportation alternative for movement of Line 5 volume from Edmonton to the refineries in the event of a shutdown, but it faces a range of operational and financial hurdles that would take quite some time, no less than about three years, to overcome."). Earnest's report further estimates that a .5 cent per gallon increase in prices for oil would result "in a cost increase for Michigan consumers of gasoline, jet fuel, and diesel of over $30 million per year." Dkt. 495 at pdf 72. Mr. Earnest goes on to estimate that a .5 cent per gallon increase in prices would "translate[] into an increase in transportation costs for Wisconsin consumers of approximately $20 million per year." *Id.* at pdf 73.

58. Mr. Earnest has opined that a shutdown of Line 5 would cause gasoline prices to rise by 4 to 6 cents per gallon in Ontario. Earnest Report, Dkt. 495, at PDF p. 74.

Enbridge Response: **Disputed in part.** Admitted that Earnest's report predicts that shutting down Line 5 would cause gasoline prices to increase by 4 to 6 cents per gallon in Ontario, but PFOF No. 58 is incomplete and misleading. Mr. Earnest's report states that "[u]sing a 5-c/gal price change, the costs increase for Ontario transportation fuel consumers will be over $300 million per year and would be challenging to manage in the winter." Dkt. 495 at pdf 74–75; *see also id.* at ¶ 7.16 ("The supply problem for Ontario will be particularly acute in the winter months when the Great Lakes and St. Lawrence Seaway close for shipping.").

59. In a typical year, Line 5 transports between 400,000 and 450,000 bpd of crude oil to as many as ten refineries—three in the Detroit-Toledo area, four in Ontario, two in Quebec, and one in Pennsylvania—that constitutes up to 37% of the total volume of crude oil delivered to them. *See* Expert Report of Sarah Emerson ("ESAI Report"), Dkt. 265-1, at PDF pp. 15, 17.

Enbridge Response: **Admitted.**

60. Line 78 delivers crude oil to the same refineries as Line 5. *See* Earnest Report, Dkt. 495, at PDF p. 49; ESAI Report, Dkt. 265-1, at PDF p. 17.

Enbridge Response: **Disputed in part.** Admitted that Line 78 is connected to the same refineries as Line 5, but disputed because Line 78 does not deliver the same product to these refineries that Line 5 does. Line 5 transports light crude and NGLs. Line 78 transports light, medium, and heavy crude throughout this region. *See* Trial Ex. 329 (Enbridge Pipeline Configuration System Q1 2022); *see also* Dkt. 610 at 71:8-16 (M. Samuel) ("Line 78 cannot move NGLs. . . . Line 78 also does not move light, premium, synthetic crude").

61. Mr. Earnest testified that Line 78 presently operates at about 100,000 bpd below capacity and that, if Line 5 were to shut down, that available capacity would be utilized to convey oil to the same refineries already receiving oil from one or both pipelines. *See* Earnest Testimony, Dkt. 610, at 99:11–20.

Enbridge Response: **Disputed.** Mr. Earnest's testimony did not state that Enbridge "would" use the available capacity on Line 78 to move crude in the event of a Line 5 shutdown. Rather, Mr. Earnest testified that he "anticipated" that the available capacity on Line 78 would be used if Line 5 ceased operation. Dkt. 610 at 99:16–20.

62. Currently, the Montreal Suncor and the Quebec Valero refineries together receive about 201,000 bpd of crude oil from Enbridge and about 107,000 from waterborne deliveries. *See* ESAI Report, Dkt. 265-1, at PDF pp. 20, 38; *see also* Earnest Testimony, Dkt. 610, at 101:14–17 (agreeing that "the Valero refinery continues to take a substantial amount of oil from waterborne sources as well as from the Enbridge system.").

Enbridge Response: **Admitted.**

63. Before December 2015, when Enbridge's Line 9 flowed from east to west, the Quebec refineries received all their oil from sources other than Enbridge: waterborne vessels unloading crude oil directly at the refineries; the Portland Pipeline, which moved crude oil from waterborne tankers unloaded in South Portland, Maine, directly to the Suncor Montreal refinery; and rail terminals at each of the refineries. *See* Earnest Testimony, Dkt. 610, at 100:23–101:13; ESAI Report, Dkt. 265-1, at PDF pp. 38–39 & n. 40.

Enbridge Response: **Admitted**, but the Band's suggestion that the Court could order numerous third parties to alter their business operations to create a viable alternative has been rejected**.** *See* 9/9/22 Hearing Tr. at 19:9–17 (an alternative involving only third parties actions is a "nonstarter") (Conley, J.).

64. Transporting crude oil by tanker from the Gulf Coast or the North Sea to Quebec is already cost-competitive with receiving crude oil on the Enbridge system. *See* Expert Rebuttal Report of Sarah Emerson ("ESAI Rebuttal Report"), Dkt. 265-2, at PDF pp. 21–23.

Enbridge Response: **Disputed.** Mr. Earnest testified that there was not "any plausible circumstance" where the Quebec refineries "would go 100% waterborne supply" for multiple reasons, including the fact that these refineries have take-or-pay arrangements on Enbridge Line 9 that they would still be responsible for if they converted to waterborne sources. Dkt. 610 at 119:13–120:3. In addition, the light sweet crude that is provided to the Quebec refineries by Line 5 can only be sourced from Western Canada, which makes the Gulf Coast crude product an unlikely replacement. *See* Dkt. 610 at 120:3–9 (N. Earnest). The Band's expert, Ms. Emerson, also testified that she did not know if tankers shipping from the Gulf have sufficient capacity available to begin shipping the amount of crude needed by the Quebec refineries from the Gulf Coast. *See* Dkt. 604 at 65:7–66:10. If at capacity, this would mean tankers would need to be ordered and built to meet the new demand, affecting the pricing for the alternative. *See* Dkt.416 at pdf 29 (William Rennicke opining that "[b]arges are not available").

This proposed finding of fact is also irrelevant. As the Court explained during pre-trial proceedings, this alternative is a "nonstarter" because the Quebec refineries are not a party to this matter. 9/9/22 Hearing Tr. at 19:9–17 (Conley, J.).

65. The Quebec refineries receiving Line 5 oil have contingency plans to replace that oil by using direct waterborne deliveries and deliveries from the Portland Pipeline (which itself is fed by waterborne tankers). *See* ESAI Report, Dkt. 265-1, at PDF pp. 38–39.

Enbridge Response: **Disputed in Part.** Admitted that Quebec refineries have made public statements that they have contingency plans for a Line 5 shutdown by using direct waterborne deliveries and the Portland Pipeline, but disputed that even if they do have contingency plans, these are not adequate, longer-term alternatives. *See* Dkt. 610 at 101:14–24; 103:3–10, 130:6–11 (N. Earnest) (testifying that it is unlikely that the Quebec refineries would revert to full waterborne sources as a permanent solution to a Line 5 closure because it would "degrade their economics," and would "[n]ot be the commercial reality").

66. Mr. Earnest acknowledged that reverting to full waterborne deliveries would be commercially viable for the Quebec refineries. *See* Earnest Testimony, Dkt. 610, at 101:18–102:2, 130:6–11 (testifying that the Quebec refineries could "viably" "convert to a fully waterborne supply" and that the "probability of [that conversion resulting] in a Quebec refinery closure is remote").

Enbridge Response: **Disputed.** The reference to Mr. Earnest's testimony is incorrect and misleading. Mr. Earnest testified only that the "Quebec refineries certainly have the ability to operate viably." This testimony only speaks to operational viability; Mr. Earnest did not testify as to whether use of non-Enbridge supplies is commercially viable and further stated "I don't think" the Quebec refiners would convert to a fully waterborne supply because it is not a "commercial reality." Dkt. 610 at 101:18–24. *See also* Response to PFOF No. 65, which is incorporated herein by reference in full.

67. The refineries served by Line 5 have rail terminals with capacity to unload between 110,000 bpd and 159,500 bpd of crude oil. *See* ESAI Rebuttal Report, Dkt. 265-2, at PDF pp. 19–20 & fig. 2 (opining that the refineries collectively have 159,500 bpd of crude oil-by-rail unloading capacity); *see id.* at PDF p. 20 fig. 2 (showing calculation by Mr. Earnest that the refineries have 110,000 bpd of unloading capacity).

Enbridge Response: **Disputed in part**. Admitted that Mr. Earnest calculated that the refineries served by Line 5 have 110,000 bpd of unloading capacity. Enbridge disputes the top of the range provided by Band expert Sarah Emerson (159,000 bpd of unloading capacity for the region) because the Band's expert who generated that figure testified that the unloading facility for PBF Toledo, which is one of the refineries relied upon for this opinion, is not presently "operating today." *See* Dkt. 604 at 63:9–22. Mr. Earnest further explained that it is highly unlikely refineries lacking current rail infrastructure would permanently implement shipping alternatives while a Line 5 reroute is still being pursued because "no

industry party would be interested in making a significant capital investment for other transportation options … into the market because of the…very real concern—that those will become stranded assets." Dkt. 610 at 111:9–112:14.

However, irrespective of the rail terminal capacity at these refineries, Mr. Rennicke's report states that "there are insufficient tank cars available to move Line 5 product volume … Current tank car lessors would not likely be interested in subleasing or diverting tank cars … [and] investors are unlikely to be willing to fund the construction of tank cars for such a limited use." See Dkt. 462 at 5. Mr. Rennicke further states that rail, as a transportation alternative to Line 5 "would take some time, no less than about three years …" to allow the market to overcome operational and financial hurdles.

68. Mr. Earnest acknowledged that reactivation of rail and tanker unloading facilities could be done "in a relatively short period of time," acknowledging, for example, that Suncor currently "has the capability to restart its rail facility and the Portland Pipeline." Earnest Report, Dkt. 495, at pp. 64–65.

Enbridge Response: Disputed in part. Admitted that Mr. Earnest's report states that the reactivation of rail and tanker unloading facilities could be done in a "relatively short period of time, but Mr. Earnest goes on to say that "some of these existing facilities require refurbishment before they can be utilized, and the time and costs to do so are unknown," and that this would still equate "to a 19 percent reduction in total crude oil supply for the Line 5 delivery area." Dkt. 495 at pdf 65. Mr. Earnest's report further clarifies that "[i]t should be understood that these alternative delivery options for the Quebec refineries are inferior to the use of Line 5, and impose higher costs and may degrade refinery yields and reduce crude oil throughput. If these alternative delivery options were superior, the Quebec refiners would be using them today." Dkt. 495 at pdf 65. Mr. Earnest also testified that it was highly unlikely refineries would make large capital investments, such as costly refurbishment projects, while the Line 5 reroute is pending because of the very real fear these would become stranded assets once the reroute is completed. *See* Dkt. 610 at 111:9–112:14; *see also* Response to PFOF No. 67, which is incorporated by reference.

69. In 2019, the crude oil run rates at the Imperial Sarnia and Nanticoke refineries dropped by about 20%—or about 43,000 bpd—below normal rates, due to fire damage at the Sarnia refinery. *See* Earnest Report, Dkt. 495, at p. 65.

Enbridge Response: Admitted but Misleading. Admitted that a fire in 2019 reduced the utilization rates of the two Imperial refineries to approximately 73%, and that this was approximately 20% less than the 2018 utilization rate. By the time of Mr. Earnest's report in January 2022, however, the utilization rates for the two impacted refineries were approximately the same as the 2018 utilization rate of 92%. Dkt. 495 at pdf 65.

70. Ethanol blending requirements in Ontario are expected to reduce demand for refinery-based gasoline in Ontario by 15,000 bpd relative to the 2019 demand figures used by Mr. Earnest, and similar requirements in Quebec are expected to reduce demand by 10,000 bpd. *See* ESAI Report, Dkt. 265-1, at PDF p. 44.

Enbridge Response: **Admitted.**

71. Mr. Earnest calculated that by increasing Line 78 usage, reactivating rail facilities, and partially increasing waterborne deliveries by the Quebec refineries, the shortfall would be reduced from about 440,000 bpd to 226,700 bpd, *see* Earnest Testimony, Dkt. 610, at 99:3–100:3, but "[i]f the Quebec refineries were, in fact, to go back to waterborne sources of crude oil, then the shortfall in the Line 5 delivery area would be reduced to 79,000 barrels a day," *id.* at 103:3–8.

Enbridge Response: **Disputed in part.** Admitted that Mr. Earnest provided the quoted language during his trial testimony, but this excerpted testimony does not mean that Mr. Earnest believes that the Quebec refineries would go back to relying solely on waterborne deliveries. *See* Dkt. 610 at 103:3–10 (Mr. Earnest testifying that Quebec returning to relying solely on waterborne sources for crude would "[n]ot be the commercial reality."); *see also* Response to PFOF No. 65, which is incorporated herein by reference in full.

72. According to Mr. Earnest's calculations, 68,100 bpd of that 79,000-bpd shortfall would be concentrated in Ontario, *see* Earnest Testimony, Dkt. 610, at 105:22–106:1, and one would "end up with no shortfall in the Detroit/Toledo region," *id.* at 105:16–21.

Enbridge Response: **Disputed in part.** Admitted that Mr. Earnest provided the quoted language during his testimony. The proposed finding of fact is, however, incomplete. Mr. Earnest testified this theoretical scenario is not commercially reasonable, and the Court acknowledged that this testimony came with the caveat that Mr. Earnest did not think this alternative would "play out in reality." Dkt. 610 at 104:15–105:21.

73. Refineries in Ontario have higher profit margins than refineries in other parts of North America. *See, e.g.*, ESAI Rebuttal Report, Dkt. 265-2, at PDF pp. 25–27; Testimony of Chris Barber, Dkt. 604, at 35:1–20.

Enbridge Response: **Admitted.**

74. According to Enbridge, it "would take approximately two to three years and potentially longer" to expand *both* portions of Line 78—Line 78A and Line 78B. *See* Defs.' Objs. and Resps. to Pls.' Fourth Set of Interrogs., Dkt. 399-4, at 5 (admitted as Trial Ex. 421).

Enbridge Response: **Disputed.** Enbridge does not dispute that the quoted language is included in its interrogatory response, but this quote in isolation does not suggest Enbridge definitively could or would expand Line 78. Enbridge's interrogatory response also states that it has no plans in place to expand Line 78, and that any attempts at an expansion project could be impacted by a multitude of factors that could cause delays such as "substantial opposition to Enbridge' efforts to permit the reroute of Line 5 around the Bad River Reservation." Trial Ex. 421 at 5. Enbridge also explained that even if Line 78 is expanded, "Line 78 notably could not accommodate any natural gas liquids (NGLs)

currently transported on Line 5 because Line 78 and terminals that receive Line 78 products are not, and cannot be, operationally configured to transport NGLs." *Id.*

75. Whereas expanding Line 78B would require installing new pipe under the St. Clair River, expanding Line 78A alone does not involve laying new pipe but would instead require adding pumping stations. *See id.* (describing actions needed to expand both segments of Line 78, including laying pipeline under St. Clair River but not mentioning the need to lay new pipeline elsewhere); Expert Report of Graham Brisben ("Brisben Report"), Dkt. 440,[3] at PDF p. 62 ("The Line 78 expansion would mostly involve increasing the pressure of the pipeline by adding compression (vs. replacing with bigger pipe or twinning the pipeline).").

Enbridge Response: **Disputed in part.** Admitted that the expansion of Line 78 could require installing approximately 8 miles of new 30-inch pipe in the United States and Canada, including horizontal directional drill under the St. Clair River. Trial Ex. 421 at 5. Admitted that expanding Line 78A would require adding pumping stations. But Enbridge has not made any formal plan or decision to expand Line 78, and a multitude of factors could affect the final design of an expansion if Enbridge ever decided to pursue one, including but not limited to any opposition to regulatory approval for the expansion. *See* Trial Ex. 421 at 5 (Defs.' Objs. and Resps. to Pls.' Fourth Set of Interrogs.).

76. Line 78A, the first leg of Line 78, currently has a maximum capacity of 570,000 bpd, and it feeds three smaller lines collectively capable of transporting 680,000 bpd—Line 17 to Toledo (100,000 bpd), Line 79 to Detroit (80,000 bpd), and Line 78B to Sarnia (502,000 bpd, a substantial portion of which can be redirected by other pipelines to Toledo and Detroit). Brisben Report, Dkt. 440, at PDF pp. 61–62.

Enbridge Response: **Disputed in part.** Admitted that the maximum capacity listed above for Lines 17, 78A, 78B, and 79. Enbridge disputes that "a substantial portion" of the 502,000 bpd that Line 78B transports "*can* be redirected by other pipelines to Toledo and Detroit.". The Band, and Mr. Brisben, do not offer any evidence establishing the costs or time it would take to begin using other pipelines to replace Line 78B. *See* Dkt. 611 at 98:18–25 (G. Brisben testifying that his report does not evaluate the timing, permitting, or costs associated with the various alternatives he suggested in his report.).

77. Expanding Line 78A to a capacity of 680,000 bpd or higher would allow Enbridge to use all the available capacity on the pipelines fed by Line 78A, which would increase supply to the Line 78 delivery area by about 110,000 bpd (from 570,000 bpd, which is limited by the current capacity Line 78A, to 680,000 bpd, which

[3] Similar to Mr. Earnest's report, this version of Mr. Brisben's report was entered as part of the trial record and filed under seal, but there is a public version—Dkt. 255-1—providing all the information for which this report is cited in these Proposed Findings of Fact. Accordingly, no redactions have been made to the citations to Mr. Brisben's report in these Proposed Findings of Facts.

would be limited by the capacity of the lines fed by Line 78A). *See* Brisben Report, Dkt. 440, at PDF pp. 61–62.

Enbridge Response: Disputed. Expanding Line 78A to a capacity of 680,000 bpd or higher would not allow the changes described in PFOF No. 77. This asserted fact ignores that the lines fed by Line 78A are already at apportionment, meaning that even if Enbridge decided to expand Line 78's capacity, the feeder lines do not have space to funnel Line 5 product into Line 78A. Dkt. 610 at 72:1–4 (M. Samuel). Furthermore, if Enbridge were to push Line 5 crude through Line 78A, it would have to be pushed through these same smaller lines before reaching customers, meaning that the volume of crude currently moved along the lines would need to be proportionally decreased to make space for Line 5 crude. *Id.* at 72:15–73:1 (M. Samuel). This, in turn, would create a bottleneck in the system, forcing Enbridge to short refineries on a proportional basis. *Id.* at 73:2–22 (M. Samuel).

2. Propane

78. The winter heating season during which the Energy Information Administration tracks residential propane prices is from October to March. *See* Expert Rebuttal Report of Jill Steiner ("Steiner Report"), Dkt. 439,[4] at PDF p. 42 & n.53.

Enbridge Response: Disputed in part. Admitted that the EIA tracks propane prices from October to March, but residents use propane throughout the year for purposes such as heating water. *See* Dkt. 493 at PDF p. 28–29 (Enbridge expert Mr. Grainger analyzing the expenses for households that use propane for heating versus households that use propane for heating and heating water).

79. Rail is the most common means by which propane and butane are transported from Canada to the United States. *See* Brisben Report, Dkt. 440, at PDF pp. 21–22; Earnest Testimony, Dkt. 610, at 107:22–108:1 (agreeing that "there is a substantial volume of propane that is exported by rail from Canada to the United States").

Enbridge Response: Admitted.

80. The Superior, Wisconsin area and the Upper Peninsula of Michigan already receive a portion of their propane by rail. *See* Brisben Report, Dkt. 440, at PDF pp. 50, 67; Earnest Report, Dkt. 495, at PDF p. 34 (showing propane-by-rail terminals near Superior and in the Upper Peninsula of Michigan).

Enbridge Response: Disputed in part. Admitted that these regions receive some supply by rail today. The Band's cited evidence, however, does not support this proposed finding of fact. Mr. Brisben's report only states that there are rail unloading facilities for propane in the Superior area and in the Upper Peninsula—not that this area "receives a portion of their propane by rail." See Dkt. 440 at pdf 50 ("There is already an existing propane unloading

[4] This version of Ms. Steiner's report was entered as part of the trial record and filed under seal, but there is a public version—Dkt. 254-1— providing all the information for which this report is cited in these Proposed Findings of Fact. Accordingly, no redactions have been made to the citations to Ms. Steiner's report in these Proposed Findings of Facts

facility in Duluth, MN."; *id.* at pdf 67 (explaining that propane "could also be received by rail" near Superior, and the Upper Peninsula could use "existing five rail unloading facilities"). Likewise, Mr. Earnest's report shows a map of where facilities exist, and not the proportion of the total propane supply that is met by rail. Dkt. 495 at pdf 34.

81. Mr. Earnest acknowledged that enough mobile transloaders to replace the propane supply in the Upper Peninsula of Michigan and the Superior, Wisconsin area can be set up in less than six months. *See* Earnest Testimony, Dkt. 610, at 110:8–12; *see also* Steiner Report, Dkt. 439, at PDF p. 57 (explaining how mobile transloaders are used).

Enbridge Response: **Disputed in Part.** Admitted Mr. Earnest provided testimony that transloaders likely could be set up in six months, but disputed the that the use of all mobile transloaders to replace supply to this region is commercially feasible. *See* Dkt. 610 at 118:8–12 ("[n]owhere in North America are you trying to transload on the order of 800,000 [sic] barrels a day of propane and butanes from a railcar, across a transloader, into a truck. Those transloaders don't exist."); *id.* at 118:25–119:12 (Earnest "not aware of anywhere in the world that uses transloaders on that type of scale" to load NGLs onto trucks).

82. To replace the entire amount of propane produced by the Rapid River and Superior fractionators, only 4–6 mobile transloaders would be needed. *See* Testimony of Jill Steiner, Dkt. 603, at 95:6–19, 99:10–14 (testifying that the Rapid River area would need to receive 3–4 rail cars per day to make up for propane lost from the Rapid River fractionator and that a portable transloader requires about 4 hours to unload a rail car, in which case 1–2 transloaders running 8–12 hours would be needed to offset the propane production of the Rapid River fractionator); *see id.* at 98:3–7 (testifying that there would need to be 2,100 bpd of propane delivered to the Rapid River area and 3,700 bpd delivered to the Superior area to make up for the loss of fractionator output, in which case the Superior area would require about twice the 1–2 transloaders required by Rapid River to offset the loss of fractionator propane).

Enbridge Response: **Disputed.** The Band provides no evidence that this option is in any way feasible to replace the propane produced by the Rapid River and Superior fractionators. At trial, Band expert Jill Steiner admitted she does not "know the actual process for unloading the NGLs using a portable propane transloader." Dkt. 603 at 91:20–22. Ms. Steiner admitted these transloaders do not currently exist in the places she proposed they would be placed. *Id.* at 92:18–21. These transloaders would need to be bought and fabricated, and there would need to be adequate room to place the transloader at the facilities. *Id.* at 92:22–93:5 (Steiner). Ms. Steiner testified she did not look into any of these logistics. *Id.* at 93:6–7. Further, to make the Band's math work, these transloaders would need to work unloading railcars 12 to 16 hours per day, no matter the weather. *Id.* at 99:16–19 (J. Steiner). Ms. Steiner was not aware of whether there is sufficient space at Rapid River, Superior, or Marysville to install portable transloaders. *Id.* at 100:5–11. Enbridge expert William Rennicke testified that using portable transloaders is not a practical alternative at the scale and scope required if Line 5 is shut down. Dkt. 604 at 98:24–99:2.

83. There exists close to one billion gallons (23 million barrels) of propane- and butane-storage capacity in the Sarnia area. *See* Brisben Report, Dkt. 440, at PDF p. 51.

Enbridge Response: **Disputed.** The Band offers no evidence of whether any of this purported storage space is available. Band expert Mr. Brisben testified at trial that the storage areas he mentioned are commonly used as long-term storage for reserves, for when the product is needed, but he "do[es]n't address the current utilization rate" of the purported storage areas or whether there is excess capacity during the winter months. Dkt. 611 at 97:9–19. Moreover, Mr. Brisben mentions loading infrastructure in this region, but does not mention any unloading infrastructure. *Id.* at 97:24–98:3 (G. Brisben).

84. There are several rail facilities with propane- and butane-storage capacity that are either in Sarnia or are near Sarnia and connected to it by a short pipeline. *See* Brisben Report, Dkt. 440, at PDF pp. 25, 67 (describing 336 million gallons—or 8 million barrels—of storage capacity at rail facility in Marysville, Michigan, which is connected by a short pipeline to the Sarnia petrochemical and refining complex); *id.* at PDF p. 26 (describing rail facility in St. Clair, Michigan, with 84 million gallons—or 2 million barrels—of storage capacity that is connected by a short pipeline to Sarnia); Testimony of Graham Brisben, Dkt. 611, at 88:5–21 (explaining that the Sarnia fractionator has rail capacity and a large storage cavern).

Enbridge Response: **Disputed.** The Band omits critical details required to render this proposed fact accurate and this option viable. Mr. Brisben does not mention or discuss in his report and testimony how much of the capacity he posits is currently available, how much would be needed, and how the facilities would load and unload the propane and butane from rail cars onto the pipeline connecting the facilities. *See* Dkt. 440 at pdf 25–26, 67 (G. Brisben report) (testifying about NGL storage space without stating available capacity or plans to load or unload the product); *see also* Dkt. 611 at 88:5–21 (G. Brisben testifying about NGL storage and hypothetical rail-receipt capability but making no mention of capacity actually available for use).

85. Michigan relies more heavily on Line 5 and less on rail than Wisconsin, but Wisconsin has had significantly *lower* propane prices than Michigan for over a decade. *See* Steiner Report, Dkt. 439, at PDF p. 43 (comparing prices in Wisconsin and Michigan); Earnest Report, Dkt. 495, at PDF p. 34 (showing propane-by-rail terminals in Wisconsin and Michigan).

Enbridge Response: **Disputed in part.** Admitted that Mr. Earnest's report, cited by the Band, shows where propane by rail terminals are located, however, the cited graphic mentions nothing about the *reliance* on propane by rail or associated prices. Dkt. 495 at pdf 34 (showing only a map of terminals). The Band appears to miscite Ms. Steiner's report, as page 43 depicts a chart comparing calculated price changes under various scenarios if Line 5 is shut down. Page 42 compares prices between Michigan and Wisconsin over time, but the Band provides no definition or reference for Enbridge to confirm whether such price differences as plotted by Ms. Steiner are "significantly" lower. Dkt. 439 at pdf 42.

86. Mr. Earnest's calculations of propane price increases are premised on the assumption that, instead of replacing Line 5 propane by increasing nearby propane-by-rail unloading capacity, the market will rely on delivering propane by truck from distant locations. *See* Earnest Report, Dkt. 495, at PDF pp. 43–44, 46– 47, 104–05.

Enbridge Response: **Disputed in part.** Enbridge admits that Mr. Earnest's calculations are premised on an assumption that propane would need to be delivered by truck from distant locations because there is no immediate propane by rail capacity. Disputed to the extent the Band mischaracterizes Mr. Earnest as opining that transporting propane by truck is a viable or practical alternative to Line 5. *See* Dkt. 495 at 47 (Mr. Earnest opining that "the existing transportation infrastructure is not currently capable of moving the required volumes if Line 5 is shut down prior to completion of the re-route. Moreover, industry will require several years to expand the transportation infrastructure to meet demand."). *See also* Dkt. 416 (Rennicke report), at pdf 5–6 ("Moving Line 5 products … by truck is impractical and commercially unviable for economic, operational, environmental, and transport network congestion reasons," noting new facilities would require investment and take years to construct, new tanker trucks would be needed, and it would be "challenging" to find enough tractors and truck drivers).

87. Mr. Earnest projects that a switch to propane deliveries by long-distance trucking would cause an increase in the consumer price of propane of more than 8 cents in each of the affected markets of the Line 5 delivery area. *See* Earnest Report, Dkt. 495, at PDF pp. 104–06.

Enbridge Response: **Disputed in part.** Admitted that Mr. Earnest opined that a switch to propane deliveries by long-distance trucking would cause an increase in the consumer price of propane of more than 8 cents per gallon over various routes. Disputed as the Band ignores Mr. Earnest's opinions on the feasibility of long-distance trucking and undersells the total cost to the region. *See* Response to PFOF No. 86, which is incorporated herein by reference in full. Mr. Earnest projects that the total increased costs to bring propane to the region will be at least $4 million per year in Wisconsin, $5 million per year in the Upper Peninsula of Michigan, $30 million per year in the Lower Peninsula, and $33 million Ontario, Canada. Dkt. 495 at pdf 46–47. But these costs do not include the necessary transportation infrastructure. *Id.* at pdf 47. "[T]he existing transportation infrastructure is not currently capable of moving the required volumes [of NGLs] if Line 5 is shut down prior to the completion of the re-route." *Id.* In short, "it's going to be chaos if Line 5 closes in the propane markets," as the "solutions for propane are s[l]im." Dkt. 610 at 116:20–24 (N. Earnest).

88. Mr. Earnest and Enbridge's expert Corbett Grainger both opined that there was a propane supply emergency in the winter of 2019–2020, which led to the need for propane deliveries by trucks traveling all the way from Kansas and Texas. *See* Earnest Report, Dkt. 495, at PDF p. 38; Testimony of Corbett Grainger ("Grainger Testimony"), Dkt. 604, at 122:24–124:13.

Enbridge Response: **Admitted.**

89. Mr. Grainger acknowledged that the residential price of propane during the period he described as a propane supply emergency was not in fact any higher than in other years. *See* Grainger Testimony, Dkt. 604, at 126:3–9.

Enbridge Response: **Disputed.** Dr. Grainger testified that the price was "in the range of other years." Dkt. 604 at 126:3–9. Dr. Grainger also testified that he expects if Line 5 were shut down, the markets would "panic" in the short-run and the wholesale price of propane would be "at the higher end of what we've seen in the recent decade." *Id.* at 137:19–138:7.

90. It may also be possible for the Sarnia fractionator to be reconfigured so that it can receive and fractionate the type of NGLs produced in the nearby Marcellus Shale. *See* Steiner Report, Dkt. 439, at PDF pp. 48–49.

Enbridge Response: **Disputed.** As shown at trial, the Band offers no support for the opinion that the Sarnia fractionator can be reconfigured so that it can receive and fractionate the type of NGLs produced in the nearby Marcellus Shale. At trial, the Band's expert Jill Steiner testified that while this was identified as a "possible alternative for consideration" for Sarnia, she did not analyze the feasibility or likelihood of this occurring. Dkt. 603 at 108:4–21. Additionally, Ms. Steiner recognized that the owner of the Sarnia Fractionator publicly stated plans to shut down the fractionator in the event of a Line 5 shutdown and was aware of no incentive the fractionator had to continue operations. *Id.* at 107:17–108:3.

[SIGNATURE LINE ON NEXT PAGE]

Dated: May 16, 2023

Respectfully submitted,

/s/ *Justin B. Nemeroff*
Michael C. Davis
David L. Feinberg
Justin B. Nemeroff
VENABLE LLP
600 Mass. Ave., NW
Washington, DC 20004
(202) 344-8278
MCDavis@venable.com
DLFeinberg@venable.com
JBNemeroff@venable.com

Eric M. McLeod
Joseph S. Diedrich
HUSCH BLACKWELL
33 East Main Street, Suite 300
Madison, WI 53701-1379
(608) 234-6056
eric.mcleod@huschblackwell.com

David H. Coburn
Alice E. Loughran
Joshua Runyan
STEPTOE & JOHNSON LLP
1330 Connecticut Avenue, NW
Washington, DC 20036-1795
(202) 429-8063
dcoburn@steptoe.com
aloughran@steptoe.com
jrunyan@steptoe.com

Counsel for Defendant

CERTIFICATE OF SERVICE

I certify that on May 16, 2023, I served the foregoing document on all counsel of record using the Court's ECF system.

/s/ Justin B. Nemeroff